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IDEA-3365-66

Copy 8 of 8

17 October 1966

**MEMORANDUM FOR THE RECORD**

**SUBJECT :** U-2R Technical Discussion with [ ] LAC,

at Burbank on 13 October 1966.

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1. Data obtained from the Ames wind tunnel tests of the U-2R 1/15 scale model were reviewed. These data were untrimmed and were run at slightly lower than full-scale Reynold's number. (Test  $Re = 3.0 \times 10^6/\text{ft.}$  vs. full scale  $Re = 4.5 \times 10^6/\text{ft.}$ ).

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2. The slope of the  $C_L$  vs.  $C_M$  curve was the same as estimated indicating acceptable static longitudinal stability. The drag coefficient at the maximum altitude cruise  $C_L = .75$  and cruise Mach number  $= .72$  was slightly less than estimated but would probably increase slightly for trim effects. At the maximum range cruise  $C_L = .50$  and Mach number  $= .73$ , the test drag coefficient was approximately 7% higher than estimated and will be increased slightly more due to trim effects. The net result of these data is a confirmation of the maximum altitude range estimate and a potential maximum cruise range reduction below the estimate.

3. The increased U-2R nose volume of 29 cu. ft. is made up of approximately 32 cu. ft. forward of the front pressure bulkhead (U-2R = 48.8 cu. ft., U-2C = 17.5 cu. ft.) and 7 cu. ft. aft of the front pressure bulkhead due to increased width and depth of the fuselage contour.

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25X1A ASD/RAD/OSA/ [redacted] ep (17 October 1966)

**Distribution:**

- Cy 1 - ASD/RAD
- 2 - D/RAD/OSA
- 3 - PSD/RAD/OSA
- 4 - D/SA
- 5 - D/O/OSA
- 6 - D/M/OSA
- 7 - IDEA/OSA
- 8 - WB/OSA
- 9 - chrono

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